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EXTENSION RESULTS AS INFLUENCED BY VARIOUS FACTORS

A Study of 552 Farms and Farm Homes in
Clay and Sedgwick Counties, Kans., 1927

M. C. Wilson and A. L. Clapp

Contents

	Page
Scope of study.....	2
Collection of data.....	2
Organization of extension in Kansas.....	4
Areas in two counties studied.....	4
General information relating to farms studied.....	5
Participation in extension activities.....	5
Farmers and farm women adopt extension practices.....	6
Methods which influenced farmers and farm women to adopt practices, and extension agents involved.....	9
Means and agencies responsible for adoption of practices.....	10
Individual methods compared.....	10
Influence of other factors upon adoption of practices.....	11
Extent and influence of 4-H club work.....	21
Why membership in farm bureau was discontinued.....	21
Attitude toward extension.....	22
Summary.....	23

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DISTRIBUTION. - One copy of this circular has been sent to each extension director, State and assistant State county agent leader, State and assistant State home demonstration leader, State and assistant State club leader, and to each agricultural college and experiment station library.

EXTENSION RESULTS AS INFLUENCED BY VARIOUS FACTORS

A Study of 532 Farms and Farm Homes in
Clay and Sedgwick Counties, Kansas, 1927

M. C. Wilson¹ and A. L. Clapp²

SCOPE OF STUDY

This study, conducted by the Office of Cooperative Extension Work, United States Department of Agriculture, and the extension service of the Kansas State Agricultural College in cooperation, furnishes some data regarding the results of extension teaching as reported by representative farmers and farm women. Attention is given to the effectiveness of the various means and agencies (methods) employed in extension and to the influence of such other factors as land tenure, contact with extension agents, educational training, and age on extension results. Extension accomplishment for purposes of the study has been measured in terms of farmers and farm women influenced to accept as a part of their usual farm and home operations the improved practices taught by the cooperative extension service.³

COLLECTION OF DATA

The data were collected by the survey method, representatives of the extension service calling at every farm within the areas selected and obtaining the information direct from the farmers and farm women concerned. The field work was done by experienced extension workers who were thoroughly acquainted with the extension program and activities in the areas studied over a period of years. The members of the survey party were trained in the use of the questionnaire card (fig. 1 and 2) before going to the field, and the schedules were carefully checked at headquarters each day and any errors or inconsistencies corrected in the field. No part of the data was collected by the local county extension workers, but these agents assisted in all other ways possible in expediting the field work and insuring completeness and accuracy of data. The definitions of extension terms approved by the Association of Land Grant Colleges and the United States Department of Agriculture and published in the annual statistical report of county extension workers have been closely followed throughout.

Information was obtained from 532 farms and farm homes equally divided between Clay and Sedgwick Counties. This number is approximately 95 per cent of all the farms located in the areas studied. No schedules were included for persons living in the open country or in small villages who were not actually operating farms.

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3 Similar studies have been made in Iowa, New York, Colorado, California, New Jersey, Georgia, Wisconsin, Arkansas, South Dakota, Illinois, Pennsylvania, and Minnesota.

ORGANIZATION OF EXTENSION IN KANSAS

Cooperative extension work in Kansas is carried on in the counties in cooperation with local associations of farmers and farm women called farm bureaus. These associations, which are recognized as semiofficial bodies by State law, are organized on a paid membership basis. In Clay County the farm-bureau membership dues have fluctuated as follows:- 1918, \$1; 1920, \$5; 1921, \$10; 1922, \$5; 1924, \$3. In Sedgwick County the annual dues have varied as follows:- 1918, \$1; 1923, \$5; 1924, \$3. In both counties the annual dues for farm women have remained constant at \$2. The farm bureaus assist in determining local extension programs, furnish local leadership, and bring to the extension service the point of view of those actually living in the county and operating farms or managing farm homes.

AREAS IN TWO COUNTIES STUDIED

The field data were collected during October, 1927, in Clay and Sedgwick Counties. Both of these counties have cooperated in the employment of extension agents for a substantial period of time and are considered representative of agricultural conditions in the central and eastern portions of the State. Home demonstration agents as well as agricultural agents have been employed in both counties and both counties have given considerable attention to work with juniors as well as to work with adults. These counties were also thought to be free from unusual circumstances which would in any way lessen the value of the study. Within the counties townships were selected which were as representative as possible of average conditions, where an average amount of extension work had been done and where the people had made an average response to extension teaching.

Clay County has had a county agent continuously since February, 1918 (Table 1). An emergency home demonstration agent was employed for part of 1918 and 1919, while a cooperatively employed county home demonstration agent has served the county since February, 1923. An agricultural agent has been at work in Sedgwick County since July, 1918, and a home demonstration agent since May, 1922. A county club agent has been employed since July, 1927.

Table 1. - Extension agents employed in counties studied

County agricultural agent :	Home demonstration agent :	Club agent
	<u>Clay County</u>	
O. B. Burtis	Mrs. Elizabeth R. Hardy	
Feb. 1, 1918-June 15, 1919	May 21, 1918-Dec. 31, 1918	
Robert E. Curtis	Sue V. Hemphill	:Q
June 16, 1919-Jan. 15, 1924	Feb. 1, 1919-June 30, 1919	
C. R. Jaccard	Maude E. Deeley	
Apr. 1, 1924-present	Feb. 16, 1923-Dec. 31, 1924	
	Elizabeth Quinlan	
	Jan. 12, 1925-June 15, 1926	
	Nellie Bare	
	Sept. 1, 1926-present	
	<u>Sedgwick County</u>	
E. J. Macy	Ethel McDonald	J. Harold Johnson
July 1, 1918-Dec. 31, 1925	May 1, 1922-Jan. 5, 1925	July 1, 1927-present
H. L. Hildwein	Mrs. L. Winter	
Feb. 1, 1926-present	Jan. 15, 1925-present	

GENERAL INFORMATION RELATING TO FARMS STUDIED

Approximately 60 per cent of the 532 farms included in the study were operated by the owners and the remaining 40 per cent by tenants (Table 2). The average size of farm was 201 acres and the average distance from the county extension office was 9.2 miles. The farmstead was located on a graded or paved road in 71 per cent of the cases. Telephones were found in 85 per cent of the homes and radios in 35 per cent of them. Children of club age (10 to 20 years) were found in one-half of the farm homes, the total number of children of club age being slightly in excess of the total number of farms studied.

Table 2. - General information relating to farms included in study

Item	Number	Per cent
Farm and home records obtained.....	532	--
Farms operated by owners.....	320	60
Farms operated by tenants	212	40
Farms with children 10 to 20 years of age.....	265	50
Children 10 to 20 years of age.....	568	--
Average size of farm (acres).....	201	--
Homes with telephones.....	452	85
Homes with radios.....	188	35
Farms located on improved roads.....	376	71
Average distance to county extension office (miles)	9.2	--

PARTICIPATION IN EXTENSION ACTIVITIES

Thirty-one per cent of the farmers interviewed were then members of the county farm bureau and an additional 18 per cent had been members in the past (Table 3). In the case of the farm women, 23 per cent were members of the farm bureau at the time the field data were collected and an additional 10 per cent had previously been members. The farmer either was serving or had served previously as a local extension leader in the case of 12 per cent of the farms. This was true of the farm women in 17 per cent of the homes.

Formal extension activities had been conducted on 20 per cent of the farms and in 28 per cent of the farm homes. An additional 43 per cent of farmers and 17 per cent of farm women had attended extension activities outside their own farms and homes. In the case of 18 per cent of the farms, a boy or girl had at some time carried on a club project.

Table 3. - Participation in extension activities and contact with extension workers

Item	Number	Per cent
Farm and home records obtained.....	552	--
Men members of farm bureau (present).....	163	31
Men members of farm bureau (former).....	98	18
Women members of farm bureau (present).....	121	23
Women members of farm bureau (former).....	55	10
Farms and homes contributing local leaders.....	120	23
Farms contributing local leaders (agriculture).....	63	12
Homes contributing local leaders (home economics).....	88	17
Farms on which extension activities were conducted.....	109	20
Other farms represented in extension activities.....	230	43
Homes in which extension activities were conducted.....	149	28
Other homes represented in extension activities.....	91	17
Farms with boys and girls in club work.....	98	18
Farms or homes represented in any extension activity.....	381	72
Farmers or home makers reporting contact with:		
Any extension worker.....	449	84
County agent.....	434	82
Home demonstration agent.....	234	44
Club agent.....	38	7
Subject-matter specialist.....	227	43
Local extension leader.....	269	51

Some member of the farm family had been in personal touch with a member of the county or State extension staff in the case of 84 per cent of the farms. Eighty-two per cent of the farmers had heard the county agent speak at a meeting, had been to his office, had had a farm visit by the agent, or a personal letter or telephone conversation. Forty-four per cent of the farm women had had similar contact with the home demonstration agent. Contact with subject-matter specialists resident at the college was reported for 43 per cent of the farms. Local extension leaders had been in touch with members of the families on 51 per cent of the farms.

FARMERS AND FARM WOMEN ADOPT EXTENSION PRACTICES

That some improved farm or home practice taught by the extension service had been incorporated in their regular farm and home operations was reported by farmers and farm women on 89 per cent of the farms included in the study (Table 4). The average number of specific changes made on these farms and in these farm homes was 5.6. Farmers on 87 per cent of the farms reported the adoption of better agricultural practices, while better home-economics practices had been accepted by 40 per cent of the farm women as a result of extension effort. A list of practices reported and the percentage of farms and homes involved in each case is given in (Table 5).

Table 4. - Farms and homes adopting practices

Item	Number	Per cent
Farm records obtained.....	532	--
Farms on which some practice had been changed.....	472	89
Average number practices changed per farm.....	5.6	
Farms on which agricultural practices had been changed..	462	87
Average number agricultural practices changed per farm..	4.2	
Homes in which home-economics practices had been changed.....	211	40
Average number home-economics practices changed per home.....	3.3	

Table 5. - Agricultural and home-economics practices reported adopted

Practice	Number of farms or homes involved	Percentage of all farms or homes
Tuberculin testing.....	295	55.5
Poultry culling.....	196	36.8
Oat varieties.....	148	27.8
Poultry feeding.....	107	20.1
Wheat-smut treatment.....	105	19.7
Gopher control.....	87	16.4
Wheat varieties.....	83	15.6
Poultry housing.....	69	13.0
Corn varieties.....	50	9.4
Poultry-insect control.....	50	9.4
Sudan grass.....	43	8.1
Chinch-bug control.....	41	7.8
Sweet clover.....	39	7.3
Seed-corn selection.....	38	7.1
Hessian-fly control.....	37	6.9
Blackleg.....	36	6.8
Brooder house.....	36	6.8
Poultry management.....	35	6.6
Poultry diseases.....	32	6.0
Oat-smut treatment.....	31	5.8
Crop varieties.....	23	4.3
Alfalfa.....	21	3.9
Swine feeding.....	20	3.8
Crop-insect control.....	19	3.6
Rodent control.....	18	3.4
Early seed bed.....	18	3.4
Swine sanitation.....	17	3.2
Potato-seed treatment.....	14	2.6
Oat-seed selection.....	14	2.6
Hog cholera.....	13	2.4
Orchard spraying.....	13	2.4

METHODS WHICH INFLUENCED FARMERS AND FARM WOMEN TO ADOPT PRACTICES AND EXTENSION AGENTS INVOLVED

In connection with each improved farm or home practice adopted, careful inquiry was made regarding the means and agencies employed in extension teaching which the farmer or farm woman thought had in any way been responsible for the acceptance of the better practice. In many cases the incorporation of the new practice in the regular routine of the farm or home was the result of the cumulative influence of several means or agencies. In other cases, the influence of a single means was outstanding. A record was also made of the extension agent or agents involved in connection with each practice adopted.

Publicity methods like general meetings, radio talks, news stories, bulletins, and circular letters were reported by 58 per cent of the farmers or farm women influenced by extension to take up improved practices (Table 6). Personal-service type of methods such as farm and home visits, office calls, and correspondence were also reported by 58 per cent of the farmers influenced. Object-lesson methods including method demonstrations and adult and junior result demonstrations were reported by 50 per cent. Influences of an indirect nature which could not be traced to definite means and agencies were mentioned by 65 per cent of those accepting the practices taught by the extension service.

The county agricultural agent was mentioned as having contributed to the adoption of improved practices in the case of 80 per cent of the farms effectively reached. Some credit was given the home demonstration agent for practices changed on 34 per cent of the farms and to subject-matter specialists on 45 per cent of the farms. Assistance from unpaid local extension leaders was recorded in the case of 52 per cent of the families influenced to adopt improved practices. (Throughout the discussion of methods and agencies one must keep in mind that the adoption of a single practice may have been influenced by several extension methods and by more than one kind of extension agent.)

Table 6. - Methods which influenced farmers to adopt practices
and extension agents involved

Item	Number	Per cent
Farms on which some practice had been adopted.....	472	89
Farms or homes influenced by:		
Publicity methods.....	311	58
Personal-service method.....	309	58
Object-lesson method.....	264	50
Indirect influences.....	346	65
Farms or homes influenced by:		
County agent.....	425	80
Home demonstration agent.....	182	34
Club agent.....	6	1
Subject-matter specialist.....	240	45
Farms or homes assisted by local leaders.....	279	52

MEANS AND AGENCIES RESPONSIBLE FOR ADOPTION OF PRACTICES

Of the 2,655 instances of improved practices adopted on the 472 farms for which the adoption of practices was reported, 1,957 relate to agriculture, and 698 to home economics (Table 7).

Methods falling in the publicity group were reported in connection with 37 per cent of the practices, personal-service methods 30 per cent, object-lesson methods 33 per cent, and the indirect influence of other methods 26 per cent. The county agricultural agent was mentioned in 55 per cent of the practices adopted, the home demonstration agent 25 per cent, and subject-matter specialists 29 per cent, while assistance from local leaders was reported for 26 per cent of the instances of better practices accepted.

Table 7. - Methods which influenced the adoption of practices and extension agent involved

Item	Number	Per cent
Practices adopted.....	2,655	100
Agricultural practices adopted.....	1,957	--
Home-economics practices adopted.....	698	--
Practices influenced by:		
Publicity methods.....	985	37
Personal-service methods.....	794	30
Object-lesson methods.....	887	33
Indirect influences.....	703	26
Practices influenced by:		
County agent.....	1,463	55
Home demonstration agent.....	671	25
Club agent.....	9	.3
Subject-matter specialist.....	772	29
Local leader.....	697	26

INDIVIDUAL METHODS COMPARED

Although not a true quantitative measure of the effectiveness of the individual methods employed in extension teaching, the frequency with which each was reported as having influenced the adoption of improved practices does furnish a basis for comparing the relative effectiveness of the various methods. Table 8 shows the percentages of practices in connection with which the influence of individual methods was reported.

Considering home-economics practices only, the influence of the method demonstration meeting was outstanding being reported in connection with 69.5 per cent of the practices. Next in order of frequency are the general meeting 18.8 per cent, leader-training meetings 11.3 per cent, and bulletins with 10.6 per cent of the practices involved. Other important influences were indirect spread, home visits, news stories, and radio talks.

Table 8. - Relative frequency with which extension methods were reported

Method	Percentage of practices adopted		
	Total	Agriculture	Home economics
Method demonstration.....	51.4	17.9	69.5
Indirect.....	26.5	33.4	7.0
Farm and home visits.....	17.9	22.0	6.4
News story.....	16.6	20.6	5.3
Meetings.....	12.4	10.2	18.8
Bulletins.....	9.5	9.1	10.6
Office call.....	9.4	12.0	2.2
Radio.....	5.9	6.1	5.5
Correspondence.....	3.8	4.5	1.9
Leader training.....	3.4	0.6	11.3
Circular letters.....	3.0	5.7	1.1
Adult result demonstration.....	1.3	1.4	1.0
Junior result demonstration.....	0.9	0.4	2.2
Telephone.....	0.4	0.6	0.1
Exhibits.....	0.3	0.5	---
Extension schools.....	0.2	0.3	---
Posters.....	0.04	---	0.1
	:	:	:

In the case of agricultural practices indirect spread leads the other means, being reported in connection with 33.4 per cent of the practices adopted. Farm visits were next, with 22 per cent of the practices involved. These were followed by news stories, 20.6 per cent; method demonstration meetings 17.9 per cent; office calls, 12 per cent; general meetings 10.2 per cent; bulletins, 9.1 per cent; radio talks, 6.1 per cent; correspondence, 4.5 per cent; and circular letters, 3.7 per cent.

Although both the adult and the junior result demonstrations were not reported as directly responsible for influencing a large percentage of practices, they doubtless contributed to the building of local proof and confidence in the extension service that made possible the effective reaching of people through such means as meetings, bulletins, news stories, and circular letters. As used in this connection the leader-training meeting can influence only the practices of local extension leaders. Where information is passed on through method demonstrations given by local leaders, the method demonstration is the direct teaching agency involved. Consideration must also be given to the interdependence of the different methods. The bulletin may supplement the talk at a meeting or an office call. Attendance at a meeting may result from seeing an exhibit or receiving a circular letter.

INFLUENCE OF OTHER FACTORS UPON ADOPTION OF PRACTICES

Many other factors besides the means and agencies employed in extension teaching may affect the adoption of the improved practices advocated by the extension service. Some of these factors are land tenure, size of farm, distance from extension office, character of roads, participation in extension activities, and contact with extension workers.

Land Tenure

Sixty per cent of the farms included in the study were operated by the owners and the remaining 40 per cent by tenants on a share-crop or cash rent basis (Table 9). Agricultural practices were reported adopted by 90 per cent of the owners, and by 82 per cent of the tenants. Home-economics practices were adopted in 41 per cent of the homes of owners, and 38 per cent of the tenant homes. The difference in percentage of owners and tenants adopting extension practices is too slight however to be of much significance.

Table 9. - Condition of land occupancy in relation to adoption of practices

Group	: :Number : of : farms	: :Percent- : age of : all farms	: :Average : size	: :Percentage of farms : changing practices : Agri-:Home : Any : cul- :econ-:practice : ture :omics:	: :Number of practices : changed per : 100 farms
Owners...	320	60	205	90 : 41 : 91	556
Tenants...	212	40	196	82 : 38 : 85	413

Size of Farm

A somewhat greater use of the extension information has been made by families living on large farms than on small farms (Table 10). The percentage of farms changing agricultural practices increased from 81 per cent for small farms to 86 per cent for medium-sized farms, and 91 per cent for large farms. In home-economics practices, 55 per cent of the homes on small farms adopted practices as compared to 47 per cent of the homes on large farms. The number of all practices adopted increased from 370 per 100 farms in the small farm group to 486 for the middle group, and 586 for the large farm group.

Table 10. - Relation of size of farms to number of farms changing practices

Group	: :Number : of : farms	: :Percent- : age of all : farms	: :Percentage of farms : changing practices : Agri-:Home : Any : cul- :econ-:practice : ture :omics:	: :Number of practices : changed per : 100 farms
Under 160 acres...	130	24	81 : 55 : 82	370
160 acres.....	184	35	86 : 35 : 88	486
Over 160 acres....	218	41	91 : 47 : 93	586

Membership in Extension Association as Associated with

Adoption of Practices

That membership in the county extension association has a close relationship to the adoption of both agricultural and home-economics practices is indicated by Tables 11 and 12. Where the farmer was a member of the farm bureau the adoption of improved agricultural practices occurred in 97 per cent of the cases. This was true in the case of 89 per cent of the former farm-bureau members, and of 80 per cent of the nonmembers. The number of improved practices adopted per 100 farmers was more than twice as great for members as for nonmembers. Among the women farm-bureau members 91 per cent reported the adoption of home-economics practices as contrasted to 78 per cent of the former members, and 16 per cent of the nonmembers. The number of improved practices adopted per 100 homes was 16 times as great where the farm women were members of the farm bureau as for the homes not affiliated with that organization.

There is very little difference in the proportion of farmer and farm woman members of the extension association adopting improved practices. It is apparent, however, that the adoption of improved home-economics practices by nonmembers of the farm bureau is much less than the adoption of agricultural practices by nonmembers.

Table 11. - Relation of men membership in farm bureau to adoption of agricultural practices

Farmers	: Number : of : farms	: Percent- : age of : all farms	: Percentage of : farms adopting : agricultural : practices	: Number of agricul- : tural practices a- : dopted per 100 farms
Members of farm bureau	: 163	: 31	: 97	: 561
Former members of farm bureau	: 98	: 18	: 89	: 328
Nonmembers of farm bureau	: 271	: 51	: 80	: 266

Table 12. - Relation of women membership in farm bureau to adoption of home-economics practices

Farm women	: Number : of : homes	: Percent- : age of : all : homes	: Percentage of : homes adopting : home-economics : practices	: Number of home- : economics practices : adopted per 100 homes
Members of farm bureau	: 121	: 23	: 91	: 402
Former members of farm bureau	: 55	: 10	: 78	: 220
Nonmembers of farm bureau	: 556	: 67	: 16	: 25

Distance From Extension Office

The farms studied were all relatively near the county extension office, the range of distance represented being from 1 to 21 miles. A difference of 6 miles in distance from the county extension office represented by the two groups (Table 13) is hardly sufficient to have any material influence upon the adoption of improved practices. Distance from the extension office, however, does not seem to be of importance in extension, for studies in other areas¹ indicate that practically as high a percentage of those located at considerable distance from the extension office have adopted improved practices as of those living close by.

Table 13. - Relation of distance of farms from extension office to change of practices

Group	: Number of farms :	: Average distance in miles :	Percentage farms changing practices			: Number of practices changed per 100 farms :
			Agri-: cul-: ture :	Home : econ- : omics :	Any practice :	
9 miles and under	: 279 :	: 6.0 :	: 86 :	: 39 :	: 98 :	: 514 :
Over 9 miles	: 253 :	: 12.0 :	: 87 :	: 40 :	: 89 :	: 483 :

Character of Roads

For those farms situated on improved roads, the adoption of improved practices was reported in 89 per cent of the cases (Table 14). This was true of approximately the same proportion of the farms situated on roads which were as yet ungraded. As brought out in other studies,⁴ character of roads seems to have little bearing upon the spread of extension information.

Table 14. - Nature of roads in relation to change of practices

Group	: Number of farms :	: Percentage of farms :	Percentage of farms changing practices			: Number of practices changed per 100 farms :
			Agri-: cul-: ture :	Home : econ- : omics :	Any practice :	
Improved roads.....	: 376 :	: 71 :	: 87 :	: 42 :	: 89 :	: 520 :
Unimproved roads...	: 156 :	: 29 :	: 86 :	: 54 :	: 83 :	: 449 :

4. Wilson, M. C., "The Effectiveness of Extension in Reaching Rural People," United States Dept. of Agriculture Bulletin 1534.

Participation in Extension Activities

Where the farm or the farm home had been the scene of some formal extension activity, such as a boy or girl in club work, a field demonstration, or a neighborhood meeting, the adoption of improved practices followed in 97 per cent of the cases (Table 15). Where there had been no activities on the farm but where members of the farm family had attended extension activities on neighboring farms or at community centers 93 per cent reported the adoption of improved practices. This was true of but 73 per cent of the families that had not attended such extension activities. The number of practices adopted per 100 farms and homes was three times as great where farmers and farm women had been induced to attend meetings or participate in other extension activities.

Table 15. - Participation in extension activities as bearing on farms changing practices

Group	: Number of farms	: Percent- age of all farms	: Percentage of farms chang- ing practices			: Number of prac- tices adopted per 100 farms
			: Agri- cul- ture	: Home- econ- omics	: Any practice	
Farms having exten- sion activities on farm and in home.....	: 197	: 37	: 94	: 73	: 97	: 775
Other farms partic- ipating in extension activities.....	: 184	: 35	: 91	: 32	: 93	: 437
Farms not participat- ing in extension ac- tivities.....	: 151	: 28	: 72	: 7	: 73	: 214

Contact with Extension Workers

Where members of the farm family had been in touch with extension workers through attendance at meetings, office calls, farm and home visits, or other ways, the adoption of agricultural practices was reported in 93 per cent of the cases and home-economics practices in 45 per cent (Table 16). Where there had been no contact with extension workers, only 54 per cent of the farmers had adopted agricultural practices, and only 12 per cent of the farm women had adopted home-economics practices. Considering both agriculture and home economics nearly four times as many improved practices were adopted per 100 farms where members of the farm family had been in touch with extension workers as in the case of families where no contacts had been made.

Table 16. - Contact with extension workers as related to change of practices

Group	: Number of farms	: Percent- age of all farms	: Percentage of farms adopt- ing practices			: Number of prac- tices adopted per 100 farms
			: Agri- cul- ture	: Home- econ- omics	: Any practices	
Farms having made con- tact with extension workers.....	449	84	95	45	95	562
Farms having made no contact.....	83	16	54	12	57	158

Tables 15 and 16 point out clearly the importance of so organizing and conducting extension work that over a period of years as large a proportion as possible of the farming people will have participated in extension activities or in other ways come in contact with the representatives of the extension service. Contact and participation would seem to be even more important in home-economics extension than in agricultural extension.

Education of Farmers and Farm Women

Where the farmer had attended college the adoption of improved practices followed in 100 per cent of the cases (Table 17). Where some high school but no college training had been received 93.2 per cent reported the adoption of improved practices. Including all cases where educational training had stopped with the common school, 84.5 per cent of the farmers adopted improved practices.

Table 17. - Education of farmers as related to adoption of agricultural practices

Educational training	: Number	: of all farms	: Percentage adopting agricultural practices	: Percentage adopting agricultural practices	: Number of agricul- tural practices a- dopted per 100 farms
Some college.....	56	6.8	100.0		642
Some high school but no college.....	73	13.7	93.2		437
Common school or less....	418	78.6	84.5		331

In the case of the farm women the adoption of home-economics practices was reported for 68 per cent of those having had some college training (Table 18). The group with high-school training only adopted practices in 54 per cent of the cases. Where educational training had not been pursued beyond the grades, 35.9 per cent of the farm women adopted improved practices in the home. It would seem but natural that there should be a direct relationship between the amount of educational training received and the use made of extension service information.

Table 18. - Education of farm women as related to adoption of home-economics practices

Educational training	Percentage		Percentage		Number of home-economics practices adopted per 100 homes
	Number	of all farms	adopting home-economics practices	home-economics practices	
Some college.....	25	5.0	68.0		212
Some high school but no college.....	124	23.0	54.0		190
Common school or less....	351	66.0	35.9		116

Age of Farmers and Farm Women

The opinion is commonly held that when a person reaches the age of 30 to 35 years the acceptance of new ideas becomes more and more difficult with increased age. There is little data available relative to this point however.

As far as the acceptance of the practices advocated by the extension service is concerned, age does not seem to have been an important factor either with farmers (Table 19) or farm women (Table 20). In the case of both men and women, the percentage adopting improved practices is higher for those between the ages of 36 and 55 than for those 35 years of age and younger. There does seem to be a decided falling off in acceptance of new practices by both men and women in the oldest age groups, 56 years and older. The percentage adopting practices in this group is only slightly less however than in the group 35 years and younger. It is possible that the persons in the two middle-age groups have greater financial resources than those in the younger group and have learned from actual experience the desirability of utilizing available agencies in helping to solve new farm and home problems.

Table 19. - Relation of age of farmers to adoption of agricultural practices

Age group	Number	Percentage of all farms	Percentage adopting agricultural practices	Number of agricultural practices adopted per 100 farms
35 years and under	120	25	85	327
36 to 45	166	31	90	337
46 to 55	122	23	89	410
56 and over	117	22	81	328

Table 20. - Relation of age of farm women to adoption of home-economics practices

Age group	Number	Percentage of all farms	Percentage adopting home-economics practices	Number of home-economics practices adopted per 100 homes
35 years and under	173	32	40	125
36 to 45	145	27	49	162
46 to 55	107	20	38	146
56 and over	74	14	27	118

Their children are also old enough to participate in 4-H club work. On the other hand, the younger farmers and farm women have the advantage of more educational training, and some of them are sufficiently young to have participated in 4-H club work themselves. The oldest group are naturally less interested in changing practices. Lessened physical activity and semiretirement are common to this group. Success in influencing farmers and farm women to adopt improved practices does not seem to be dependent upon coming under the influence of extension teaching at an early age, if the study of 532 non-selected farm families in two Kansas counties may be considered representative.

Radio

Of the 532 farms studied, 188 or 25 per cent were equipped with a radio (Table 21). An additional 3 per cent planned to buy radios in the near future. Extension radio programs had been received by 183 families either over their own radios or by listening in at neighbors. In the case of 65 farmers some practice was adopted due to information obtained over the radio. This is equal to 34.8 per cent of those receiving extension programs over the radio. A total of 156 practices were credited to the influence of the radio which is 5.9 per cent of all the practices credited to extension influence.

Table 21. - Influence of radio on adoption of improved practices

Number of farms with radio.....	188
Percentage of all farms.....	35.3
Number getting extension programs over radio.....	187
Number influenced by radio to adopt improved practices.....	65
Percentage of those getting radio extension programs.....	34.8
Number of practices adopted due to influence of radio.....	156
Percentage of all practices adopted.....	5.9

The noonday radio program from the State agricultural college was listened to on more farms than the evening program or the morning program (Table 22). More families indicated a preference for this noonday program than for the morning and evening programs, the numbers being 61, 19, and 43 respectively. With regard to time of the evening program, 21 families desired the program to start at 6:30 p.m.; 32 at 7:00 p.m.; 53 at 7:30 p.m.; and 31 at 8:00 p.m. When questioned about the amount of entertainment included in the radio programs along with subject-matter information, the majority were satisfied with the existing arrangement. That the entertainment features be increased was suggested by 23, and that they be decreased was suggested by 11 families. A total of 130 families reported obtaining useful agricultural information over the radio from other stations than KSAC.

Table 22. - Percentage of families obtaining morning, noon, and evening programs and time of day preferred

Number of families getting radio extension program from	
Kansas State Agricultural College.....	178
Number getting morning program.....	127
Number getting noon program.....	149
Number getting evening program.....	135
Number preferring morning program.....	19
Number preferring noon program.....	61
Number preferring evening program.....	43

Table 22.- Percentage of families obtaining morning, noon, and evening programs and time of day preferred. Continued

Number preferring evening program at 6:30 p.m.	21
Number preferring evening program at 7:00 p.m.	32
Number preferring evening program at 7:30 p.m.	53
Number preferring evening program at 8:00 p.m.	31
Number who think KSAC program contains too little entertainment.....	25
Number who think KSAC program contains too much entertainment.....	11
Number getting useful agricultural and home-economics information from stations other than KSAC.....	150

Agricultural Trains

Agricultural trains containing exhibit and demonstration material had been operated for the past several years by the railroad serving the areas studied in cooperation with the extension service. As conducted these trains included three of the means and agencies commonly employed in extension teaching: The exhibit, the general meeting, and the method demonstration meeting. Of the 532 families studied representatives of 176 of them had visited the agricultural trains (Table 23). Approximately one farmer in seven attending the train reported some agricultural practice adopted through the influence of activities incident to the train. The 32 practices mentioned represent 1.2 per cent of all the improved practices adopted on the farms studied.

General meeting phases of the train were reported in connection with 17 of these 32 practices, exhibit phases 5, and method demonstrations 12, there being 2 practices in which the influence of two phases was involved. No home-economics practices were credited to the influence of trains. In terms of improved practices adopted, the influence of agricultural trains was about one-fourth that of the radio.

Table 23. - Influence of agricultural trains

Item	: Number : or : percentage
Farm and home records obtained.....	552
Farms represented at agricultural train.....	176
Influenced by train to adopt improved practices.....	26
Percentage of those attending.....	14.7
Number of practices adopted through influence of train.....	32
Number of practices involving general meetings.....	17
Number of practices involving exhibits.....	5
Number of practices involving method demonstrations.....	12
Percentage of all improved practices adopted accredited to train.....	1.2

EXTENT AND INFLUENCE OF 4-H CLUB WORK

Boys and girls of club age (10 to 20 years) were found on one-half of the farms studied. These families averaged more than two children of club age per family so that the total number of boys and girls found eligible for 4-H club work was slightly in excess of the total number of farms included in the study (Table 24). One hundred and forty-six boys and girls from 98 farms either were engaged in club work at the time the field data were collected, or had carried on a club project at some previous time. This number is equal to 25.7 per cent of the total number of boys and girls of club age and accounts for 18 per cent of the farm families participating in extension activities. The average age of the 15.1 per cent of the boys and girls of club age in club work at the time of collecting field data was 13.5 years. Only 5.8 per cent of the 1927 club members were not attending school. The influence of junior result demonstrations was reported in connection with .9 per cent of improved practices adopted by adults.

Table 24. - Farms and children in junior project work

Farm and home records obtained.....	552
Percentage of families with children of club age (10 to 20 years).....	50
Number of children of club age.....	568
Number of families with boys and girls in 4-H clubs (ever).....	98
Percentage of families with children in club work (ever).....	18
Number of boys and girls in 4-H clubs (ever).....	146
Percentage of boys and girls (10 to 20 years) in club work (ever).....	25.7
Percentage of boys and girls (10 to 20 years) in club work-1927.....	15.1
Average age of club members - 1927.....	13.5
Percentage of 1927 club members not in school.....	5.8
Percentage of all practices adopted due to influence of junior result demonstrations.....	.9

WHY MEMBERSHIP IN FARM BUREAU WAS DISCONTINUED

There were 98 farmers and 55 farm women found who had been members of the county farm bureau at one time but who had discontinued that membership. Among the farmers the principal reasons for withdrawal given were size of membership fee, lost interest, no direct benefits from membership, and dissatisfaction with the management of the organization (Table 25). In the case of the farm women there were two chief reasons given for dropping out of the farm bureau: Other interests which took up their time, and inability to attend the meetings of the farm bureau women's clubs.

Table 25. - Reasons for discontinuing farm bureau membership

Item	Men	Women
Number of former members of farm bureau.....	98	55
Number discontinuing membership because of:		
High dues.....	52	--
Lost interest.....	24	3
Too busy with other interests.....	6	22
No direct benefits.....	12	2
Unable to attend meetings.....	-	15
Dissatisfied with management of farm bureau.....	10	2
Moved to new community.....	3	5
Poor health.....	-	4
Miscellaneous.....	3	2
No reason given.....	8	-

ATTITUDE TOWARD EXTENSION

In connection with each farm family interviewed an estimate was made of the attitude toward extension. Seventy-eight per cent or nearly four families out of five were reported favorable to the work (Table 26). One family out of 14 was reported opposed, and the remainder, or 15 per cent, indifferent. Among the farming people there are apparently 11 people interested in the further development of extension for every person opposed to it. The indifferent group presents a challenge to extension workers.

Table 26. - Attitude toward extension

Item	Number	Percentage
Farm records obtained.....	532	100
Families reported favorable.....	415	78
Families reported indifferent.....	78	15
Families reported opposed.....	39	7

SUMMARY

The study is based on information obtained from 532 nonselected farm families in representative areas of two Kansas counties.

Improved farm or home practices were reported adopted due to extension influence on 87 per cent of the farms and in 40 per cent of the farm homes.

In the case of the agricultural practices adopted, the teaching means and agencies most frequently reported were indirect spread, farm visits, news stories, method demonstrations, office calls, and meetings.

With the home-economics practices the influence of the method demonstration was outstanding with general meetings, leader-training meetings, and bulletins also of major importance.

The families of owner operators adopted approximately 55 per cent more improved practices than the families of tenant operators. Greater use of extension information in both agriculture and home economics was made by the families living on large farms than by the families on small farms.

Status of membership in the farm bureau was closely associated with the adoption of improved practices. There was much less spread of home-economics practices to women nonmembers than in the case of agricultural practices to men nonmembers.

Distance from the extension office and character of roads were of little importance.

Participation in extension activities and contact with extension workers were important factors in the adoption of improved practices, being even more important with farm women than with farmers.

Approximately twice as many improved practices were adopted by farmers and farm women with some college training as compared to those with common-school education or less.

Age does not seem to be an important factor in extension teaching. Farmers and farm women between the ages of 36 and 55 years adopted fully as many new practices as was true of those 55 years and younger.

Nearly 35 per cent of those getting extension programs over the radio made some practical use of the information obtained.

One out of seven attending the agricultural train reported having used some of the information obtained.

The number of boys and girls ever in 4-H club work was equal to nearly 26 per cent of the number of club age at the time the field data were collected.

The size of the membership dues, lost interest, no direct benefits, and dissatisfaction with the management were the chief reasons given by the men for dropping out of the farm bureau. Other interests and inability to attend meetings accounted for more than half of the discontinued membership in the farm bureau by farm women.

Only 7 per cent of the families were reported opposed to extension while 78 per cent were favorable, indicating wide acceptance of cooperative extension work as an important force in improving agriculture and farm-home life.

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